

The Effect of Masculinity and Femininity Incongruence on Consumer Responses to Brands

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This article examines the effect of incongruence between consumer gender and brand gender on consumers' affective, cognitive, behavioral and relational responses toward brands. It introduces the notion of consumer-brand boundary as the perceived psychological distance between a consumer and a focal brand, validates a measure of this construct, and demonstrates that consumer-brand boundary mediates gender incongruence effects. Two studies show that both masculinity and femininity incongruence increase consumer-brand boundary, and that lower masculinity incongruence only mitigates consumer-brand boundary when femininity incongruence is also low (but not when it is high). Implications for theory and managerial practice are discussed.

Keywords: consumer gender, brand gender, gender incongruence, consumer-brand boundary, brand evaluation.

INTRODUCTION

In a business environment that is characterized by increasing consideration of equity, diversity, and inclusion, inquiries into the effect of gender on consumer responses to brands have the potential to inform branding strategies and enhance subsequent consumer experiences. This article therefore examines the effect of gender incongruence consumer responses to brands. Gender incongruence is defined here as the perceived mismatch between a consumers' self-reported levels of masculinity and femininity (i.e., consumer gender) and the masculinity and femininity consumers associate with a brand (i.e., brand gender). This article shows that perceived incongruence between consumer gender and brand gender leads to psychological distancing toward a brand, such that consumers develop stronger psychological boundaries toward incongruent brands. Increased consumer-brand boundaries subsequently influence consumer responses to the brand in undesirable ways.

In investigating the relation between consumer-brand gender incongruence and consumer responses to the brand, this article introduces the notion of consumer-brand boundary, develops a measure for this construct, and demonstrates that consumer-brand boundary plays an important mediating role in the relation between consumer-brand gender incongruence. In the psychology literature, boundaries define where an individual's psychological and physical space ends and others begin (Brown, 2006; Whitfield, 1993). Boundaries allow individuals to protect the integrity of their self-concept by keeping out people or things

that interfere with self-maintenance and self-enhancement (Whitfield, 1993). Boundaries therefore play an important role in psychological health, as well as the health and success of interpersonal relationships (Brown, 2006; Whitfield, 1993). Interpersonal relationships serve as a blueprint for consumer-brand relationships and facilitate an understanding of how consumers relate to brands (Fournier, 1998). Although research on consumer-brand relationships has made significant progress, the notion of consumer-brand boundaries has remained unexplored—despite its potential contribution to the literature. This article therefore develops the notion of consumer-brand boundary, examines how it arises in the context of gender incongruence, and documents its consequences.

Anecdotal evidence suggests that there are limits to the products and brands that are allowed into a consumer's psychological space. For example, in an interview about the use of make-up brands conducted in the context of this research, a male consumer stated that he would use foundation, but not lipstick or blush, and added "... then you know where my boundary is." This statement suggests that—against the backdrop of their social and cultural environment—consumers develop boundaries with regard to products and brands that carry gender associations. In an environment in which skin care and make-up brands are still perceived as more appropriate for women, men may be inclined to develop thicker boundaries toward such brands. Nonetheless, boundaries vary across consumers and brands, as well as across geographical context and time. Jackson Wang—one of the most popular contemporary K-pop stars—notably said about the use of make-up that "... at the end of the day, I feel like it's just art. There is no boundary in art." These two examples point toward the possibility that varying degrees of consumer-brand boundaries exist and that these may influence consumers' willingness to engage with and respond positively toward brands.

The goals of this article are to explore the notion of consumer-brand boundary, provide a definition and measure of the construct, and demonstrate its usefulness in understanding consumer responses to brands by investigating consumer-brand gender incongruence as one antecedent of consumer-brand boundary, as well as the impact of consumer-brand boundary on affective, attitudinal, behaviorally oriented, and relational consumer responses to the brand. The contributions of this article are threefold: First, this research builds on the psychology literature on boundaries and develops the notion of consumer-brand boundaries. It proposes that consumers develop boundaries toward brands that allow them to bolster the sense of an autonomous, separate self (i.e., what is 'me' and what is 'not me'). The brand relationship literature shows that consumers establish connections with brands (Abimbola et al., 2012), build relationships with brands (Fournier, 1998), and integrate brands into their self-concept (Sprott, Czellar, & Spangenberg, 2009). The current literature emphasizes the notion of perceived relatedness and connection of consumers' self and brands, but does not consider a distancing from brands in consumers' psychological space due to a need for autonomy, control, and responsibility, which is an important aspect of the self (Laing, 1965; Strawson, 1997). Second, this article proposes and validates a measure to capture consumer-brand boundaries, which allows for the empirical test of theories regarding antecedents, moderators, or consequences of consumer-brand boundaries. Third, by examining consumer-brand gender incongruence as one antecedent of consumer-brand boundaries, this research also contributes to the emergent literature on brand gender effects, which explores the impact of brand femininity and brand masculinity on consumer responses to brands and consistently finds positive effects of congruence between consumers' masculine and feminine gender identity and brand gender perceptions (Grohmann, 2009; Lieven & Hildebrand, 2016). Investigations of the potential negative implications of consumer-brand gender incongruence are scarce, and—at this time—limited to insights regarding brand acceptance and rejection (Neale, Robbie, & Martin, 2016). The current research relates masculinity and femininity incongruence between consumers' gender identity and brand gender to consumer-brand boundary, and subsequently to a range of affective (i.e., brand trust, affect), attitudinal (i.e., brand attitude, preference, attitudinal brand loyalty), behaviorally oriented (i.e., behavioral brand loyalty, likelihood of recommendation, word of mouth, purchase intentions) and relational (i.e., brand-self connection, brand attachment) consumer responses. It demonstrates that a number of important consumer responses are affected by masculinity and femininity incongruence, and that masculinity and femininity incongruence contributes independently and interactively to consumer responses toward brands.

This article is structured as follows: it first reviews the literature on consumer-brand relationships, consumer-brand boundary, and brand gender incongruence. An empirical study involving existing brands then proceeds with the validation of a consumer-boundary measure and provides initial evidence of a positive association between gender incongruence and consumer-brand boundary. An experimental study then offers additional evidence for the effect of gender incongruence on consumer-brand boundary, as well as the mediating role of consumer-brand boundary in the relation between gender incongruence and consumer responses to the brand. The article concludes with a discussion of theoretical and managerial implications, as well as limitations and future research opportunities.

LITERATURE REVIEW

Consumer-Brand Relationships

Interpersonal relationship theories have inspired the investigation of consumer-brand relationships (Blackston, 1992; Fournier, 1998). Consumers often consider brands as quasi-human entities—particularly when brands are anthropomorphized (Aggarwal & McGill, 2007, 2012; Kim & Kramer, 2015). It has been shown that consumers ascribe human features (Haley & Fessler, 2005; Hur, Koo, & Hofmann, 2015; Kim, Chen, & Zhang, 2016; Kim & McGill, 2011), qualities (Puzakova, Kwak, & Rocereto, 2013; Waytz, Heafner, & Epley, 2014; Weiss & Johar, 2013), capacities (Chen, Nelson, & Hsu, 2015; Kwak, Puzakova, & Rocereto, 2015), intentions and feelings (Waytz et al., 2010a, 2010b, 2010c), and personality traits (Aaker, 1997; Grohmann, 2009) to brands. Consumers connect to brands (Chaplin & John, 2005; Fennis & Pruyn, 2007; Grohmann, 2009), build relationships with brands (Aggarwal & McGill, 2012; Fournier, 1998, 2014; Thomson, MacInnis, & Park, 2005), and integrate brands into their self-concept (Sprott, Czellar, & Spangenberg, 2009).

Consumers' consideration of brands as humanlike entities gives rise to positive consumer responses that mirror aspects of interpersonal relationships and include brand attachment (Park et al., 2013a, 2013b; Thomson, MacInnis, & Park, 2005), brand connection (Shimp & Madden, 1988), brand love (Batra, Ahuvia, & Bagozzi, 2012; Carroll & Ahuvia, 2006; Park et al., 2013a, 2013b), and brand affection (Albert, Merunka, & Valette-Florence, 2008). As in interpersonal relationships, ambivalent or negative outcomes also occur in a brand context. These include approach-avoidance conflict (MacInnis & Folkes, 2017), brand aversion (Fournier, 1998; Wiggin & Yalch, 2015) and perceptions of brand betrayal (Gregoire & Fisher, 2008; Johnson, Matear & Thomson, 2010). In addition, different types of consumer-brand relationships emerge on the basis of power balance differences (Fournier & Alvarez, 2012; Kim & Kramer, 2015; Miller, Fournier, & Allen, 2012), individual factors (e.g., loneliness; Long, 2015), and brand personality (Aaker, Fournier, & Brasel, 2004; Grohmann, 2009; Park & John, 2010; Smit, Bronner, & Tolboom, 2007).

In the brand relationship literature, brand attachment and self-brand connection have received increasing attention due to their positive implications for brands: Brand attachment—the strength of the consumer-brand bond (Park et al., 2013a, 2013b)—predicts consumers' willingness to invest in the brand relationship (Orth, Limon, & Rose, 2010; Thomson et al., 2005), brand loyalty (Park et al., 2013a), brand advocacy and desire to be part of brand community (Schau, Muniz & Arnould, 2009). Brand-self connections—defined in terms of identity resonance (Escalas & Bettman, 2003, 2005), goal resonance (Fournier, 1998; Keller, 2001), brand-self closeness, and brand-self overlap (Park et al., 2013a)—also impact a range of consumer responses to brands, including brand evaluations (Cheng, White, & Chaplin, 2012) and word-of-mouth communication (Kwon & Mattila, 2015). Antecedents of brand attachment and self-brand connection include sociality motivation—such as self-esteem or social exclusion (Dommer et al., 2013), fear (Dunn & Hoegg, 2014), and loneliness (Pieters, 2013); effectance motivation, which relates to a brand's potential to enable and enrich the self (Park et al., 2013a; Proksch, Orth, and Cornwell, 2015), and brand personality and self-concept congruity (e.g., Aaker et al., 2004; Ghuman et al., 2015; Orth, Limon, & Rose, 2010).

Overall, the literature on brand attachment and brand-self connection suggests that important parallels exist between interpersonal and brand relationships, and that the application of relational constructs makes a considerable contribution to elucidating consumers' responses toward brands. This literature is also

characterized by a focus on perceived relatedness and connection of self and brands. This perspective does not consider consumers' need for autonomy and control—and related limits and boundaries of their psychological space—which has implications for the extent to which consumers seek attachment or connections to brands. To offer a complementary perspective on factors contributing to the strength of consumer-brand relationships, this article now turns to the notion of consumer-brand boundary.

Consumer-Brand Boundary

According to developmental theories of self, individuals start to realize that they are separate from others when they recognize that mental representations cannot be observed by others (Strawson, 1997). As a result, individuals begin to experience themselves as autonomous (Laing, 1965). This sense of self (Strawson, 1997) or sense of autonomy (Laing, 1965)—and associated perceptions of separateness and uniqueness—allows for relations and connections to arise without a complete loss of self or identity (Laing, 1965; Strawson, 1997, 1999). Importantly, in order to achieve a healthy sense of self as well as healthy relationships, individuals need to balance autonomy and interrelatedness (i.e., interdependence as an equilibrium between independence from and dependence on others; Whitfield, 1993). In both the psychology and branding literature, research has mainly focused on relationships and relatedness, while the notion of maintaining an autonomous self within relations has not received as much attention. A consideration of psychological boundaries may provide some insights into relationships from a perspective of self-concept maintenance, however.

The literature on boundaries in psychology is situated mostly in the context of dreams as well as psychotherapy—particularly with regard to codependent relationship patterns which involve the lack of appropriate physical, emotional, mental, and spiritual boundaries (Whitfield, 1993). The literature on dreams delineates thin versus thick boundaries between any two entities, processes, or functions of the mind. Boundary in this context reflects the connection (thinness) and separation (thickness) amongst entities, such as id, ego, superego; feelings, thoughts, and memories; or different processing units (Hartmann, 1984). Boundary thickness is measured in a boundary questionnaire that consists of 145 five-point scales covering various aspects of personality, mental states, cognitive styles, and personal opinions about organizations, groups, nations, truth, and beauty (Hartmann et al., 1991, 1998).

Psychology researchers (Beaulieu-Prevost & Zadra, 2007; Zborowski et al., 2003) adopted the definition of the boundary of minds by Hartmann, Elkin, and Garg (1991). Subsequent definitions of boundaries in psychology and psychotherapy indicate that a boundary marks a limit which is created by individuals to identify a safe and permissible way for others to behave (Whitfield, 1993). Brown (2006) defines boundaries as “the internal and unconscious demarcation points or lines that define where ‘I’ begin and ‘other’ ends” (p. 44). Brown (2006) proposes four types of boundary (i.e., soft, spongy, rigid, and flexible) and two boundary domains (i.e., physical and psychological), but did not develop a comprehensive framework linking these notions or a measure of the proposed boundary characteristics.

In an extension to the literature on interpersonal relationships—which suggests that people develop boundaries to balance the inclusion of others in their self-concepts while maintaining a degree of separateness (Brown, 2006; Whitfield, 1993)—it is proposed here that the boundary between consumers and brands helps consumers negotiate to what extent it is psychologically safe for them to include brands in their self-concept (Belk, 1988; Sprott, Czellar, & Spangenberg, 2009) while maintaining their self-concept. Based on the definitions of boundary advanced in the psychology literature, *consumer-brand boundary* is defined here as a consumer's perception of the psychological distance between themselves and a focal brand.

To demonstrate the potential theoretical contribution of the consumer-brand boundary construct and to provide a relevant context for the validation of a consumer-brand boundary measure, this research examines perceived gender incongruence between consumers and a brand as an antecedent of consumer-brand boundary, as well as the mediating role of consumer-brand boundary in the relation between gender incongruence and consumers' responses to the brand.

Gender Incongruence as an Antecedent of Consumer-Brand Boundary

The literature suggests that gender identity—the extent to which individuals identify with masculine and feminine personality traits (Deaux, 1985)—is an important part of individuals' self-concept (Fischer & Arnold, 1994; Spence, 1984). Consumers use brands as resources to reflect aspects of their self-concept, including gender identity (Dolich, 1969; Fournier, 1998). Consumers' gender identity influences consumption behaviors (Palan, 2001), product choice (Funk & Ndubisi, 2006; Neale, Robbie, & Martin, 2016), eco-friendly behavior (Brough et al., 2016), consumption of advertising content (Feiereisen, Broderick, & Douglas, 2009; Hogg & Garrow, 2003), information search behavior (Ramkissoon & Nunkoo, 2012), and brand-related responses (Grohmann, 2009; Neale, Robbie, & Martin, 2016).

In order to position brands to serve as resources for the expression of consumers' gender identity, brand managers apply gender-typed brand elements, such as color (Fugate & Phillips, 2010; Van Tilburg et al., 2015), brand name or type font (Guèvremont & Grohmann, 2015), logo shape (Lieven et al., 2015), or highly masculine or feminine spokespeople in advertisements (Grohmann, 2009). The resulting consumer perceptions of brand gender (i.e., the extent to which a brand is perceived as masculine and feminine, in a two-dimensional space; Grohmann, 2009) influence brand related consumer responses (e.g., preference, attitude, purchase intention; Grohmann, 2009; Lieven et al., 2015) and brand equity (Lieven et al., 2014; Lieven & Hildebrand, 2016). Importantly, consumer responses are contingent upon the level of congruence between brand gender and consumers' gender identity (Grohmann, 2009). A high level of congruence in terms of consumers' gender identity and brand gender enhances affective (i.e., brand trust, brand affect, affective loyalty), cognitive (i.e., brand attitude, cognitive brand loyalty), and behaviorally oriented responses to brands (i.e., purchase intentions, word-of-mouth communication, likelihood of recommendation; Grohmann, 2009; Neale, Robbie, & Martin, 2016). These findings are aligned with positive congruence effects of brand gender and consumers' biological sex on brand preferences and brand equity (Lieven et al., 2015; Lieven and Hildebrand, 2016), with some research pointing toward gender identity being a better predictor of congruence effects than biological sex (Neale, Robbie, & Martin, 2016).

Although most research has focused on the positive effects of congruence between brand gender and consumers' gender identity, more recent work considered the possibility of rejection of brands that are gender incongruent (Neale, Robbie, & Martin, 2016). In line with literature on opposite sex rejection (Alreck, 1994; Neale, Robbie, & Martin, 2016; Morris & Cundiff, 1971), consumers with a masculine gender identity indeed showed greater rejection (i.e., less affective and cognitive loyalty, lower purchase intentions) toward feminine brands than did consumers with a feminine gender identity toward masculine brands (Neale, Robbie, & Martin, 2016). The current article extends this line of research by examining the effects of incongruence between consumers' gender identity and brand gender (i.e., masculinity and femininity incongruence between brands and consumers) on consumer-brand boundary. Because gender incongruent brands have the potential to threaten consumers' gender identity and because consumers may therefore wish to distance themselves from the gender incongruent brand in order to maintain their gender identity, thicker boundaries are likely to arise between consumers and brands as gender incongruence increases. Note that—because both consumers' gender identity and brand gender are two-dimensional constructs defined along a masculinity and a femininity dimension—this research examines incongruence with regard to both masculinity (hereinafter masculinity incongruence) and femininity (hereinafter femininity incongruence).

H1: *There is a positive relation between consumer-brand gender incongruence and consumer-brand boundary: As masculinity and femininity incongruence increase, consumer-brand boundary increases.*

Through lifelong development, individuals learn social norms and expectations regarding gender traits, and how men and women should behave (Cross & Madson, 1997; Deaux & Major, 1987; Eagly, 2013; Wood, Christensen, Hebl, & Rothgerber, 1997). Prior research shows, however, that men and women are differentially attentive and sensitive to the maintenance of gender identity. Compared to women's transgressional gendered behaviors, society penalizes men's gender-inconsistent behaviors to a greater extent (Bosson & Michniewicz, 2013; McCreary, 1994). For example, gay men are perceived more

negatively than lesbians (Herek, 2000), and boys are punished more than girls when they show gender-incongruent playing behaviors (Langlois & Lown, 1980). As a consequence, transgressional gendered behaviors tend to be more psychologically damaging for men than for women (Aube & Koestner, 1992). Men are more sensitive and responsive to subtle gender cues to avoid the stigma of femininity, whereas women do not feel as negatively about being perceived as masculine (Gal & Wilkie, 2010; Rothgerber, 2013). The brand gender incongruence literature suggests that men are resistant to gender contamination of originally masculine brands (Avery, 2012) and tend to avoid products associated with a female outgroup (Ulrich & Tissier-Desbordes, 2018; White & Dahl, 2006).

This suggests that—compared to masculinity incongruence—femininity incongruence is perceived as less acceptable and less desirable. Although both masculinity and femininity incongruence likely increase consumer-brand boundary, femininity incongruence may moderate the relation between masculinity incongruence and consumer-brand boundary: While lower (vs. higher) levels of masculinity incongruence should result in thinner consumer-brand boundaries, a concomitant higher (vs. lower) level of femininity incongruence likely increases consumer-brand boundaries. In other words, lower masculinity incongruence only mitigates consumer-brand boundary when femininity incongruence is also low (but not when it is high).

H2: *There is an interaction between masculinity and femininity incongruence. When femininity incongruence is low, higher masculinity incongruence is associated with higher consumer-brand boundary; when femininity incongruence is high, masculinity incongruence does not relate to consumer-brand boundary.*

As consumer-brand boundary denotes the psychological distance between consumers and a focal brand, it is likely to influence affective, cognitive, behaviorally oriented, and relational consumer responses toward the brand. Thicker boundaries imply greater self-protective responses and entail lower levels of positive emotions, attitudes, or willingness to connect or engage in relationships. It is therefore expected that consumer-brand boundary relates negatively to consumers' responses to a brand. As masculinity and femininity incongruence are hypothesized to interactively influence consumer-brand boundary (H2), brand boundary is likely to mediate the interactive effect of gender incongruence on consumer responses to a brand.

H3: *Consumer-brand boundary mediates the interactive effect of masculinity and femininity incongruence on consumer responses to the brand (i.e., brand trust, brand affect, brand attitude, preference, purchase intention, brand loyalty, recommendation likelihood, word-of-mouth intentions, self-brand connection, and self-brand attachment).*

METHOD

Two studies test the relation between brand gender incongruence and consumer-brand boundary (H1, H2), as well as the mediating effect of consumer-brand boundary in the relation between brand gender incongruence and consumer responses to the brand (H3). Study 1 introduces a measure of consumer-brand boundary, establishes its validity, and provides evidence for the hypothesized relations between brand gender incongruity and consumer-brand boundary (H1, H2) in the context of existing brands. Study 2 is an experiment that replicates the relation between brand gender incongruence and consumer-brand boundary (H1, H2), and shows that consumer-brand boundary mediates the relation between brand gender incongruence and brand-related responses (H3).

Study 1

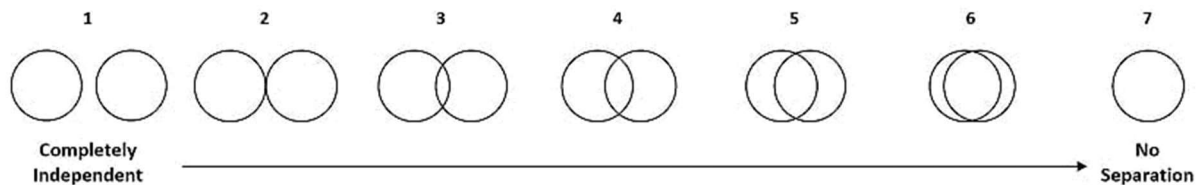
Study 1 validates a new measure of consumer-brand boundary. Using 44 existing brands, it examined the correlation between boundary and brand-related consumer responses—including brand attitude, preference, affect, trust and likelihood of recommendation—and the measure's discriminant and convergent

validity with regard to measures of self-brand connection (Escalas & Bettman, 2003), self-brand attachment (Thomson, MacInnis, & Park, 2005), and brand engagement in self-concept (BESC, Sprout, Czellar, & Spangenberg, 2009). The study also examines the hypothesized relations between masculinity and femininity incongruence and consumer-brand boundary (H1, H2).

Sample, Procedure, and Measures

Four hundred and sixty-one North American participants were recruited from Amazon's Mechanical Turk (hereinafter referred to as MTurk) online panel for a compensation of \$1.50. After removal of data based on incorrect responses to an attention check question, the analysis was based on data from 451 participants (51.2% male; $M_{age} = 40.54$; $SD = 12.67$). After providing informed consent, participants completed a practice block of six brand ratings (Google, Amazon, Coca-Cola, WWF, Walmart, and Government Canada) on the consumer-brand boundary measure. The consumer-brand boundary construct was measured on a seven-point Venn diagram measure, which consisted of seven circles representing varying degrees of distance between the consumer's self and the focal brand (anchored 1 = completely independent, 7 = no separation; See Figure 1).

FIGURE 1
CONSUMER-BRAND BOUNDARY MEASURE



This measure ranges from complete independence (i.e., thick boundary) to the merging of self and brand (i.e., no boundary). A similar scale format is used in studies of interpersonal relationships (e.g., *Inclusion of Other in the Self* scale – IOS; Aron, Aron, & Smollan, 1992), self-object relationships (e.g., *Experienced Self and Other* scale – ESOS; Shvil, Krauss, & Midlarsky, 2013) and self-organization relationship (Bergami & Bagozzi, 2000). The IOS scale is used to explore friendships and romantic relationships (Lin & Rusbult, 1995) and cooperative behaviors (De Cremer & Stouten, 2003), whereas the E-SOS scale is applied to examine the relationship between an individual's self and negative emotion (e.g., sadness, stress, anxiety), view of self (e.g., optimism, self-control, physical body, fantasies), persons (e.g., acquaintances, class friends, and those over whom I have power), family members (e.g., mother, father, sibling), and objects (e.g., drugs, alcohol). The application of a Venn-diagram scale to measure the exclusion of objects from the self (Shvil, Krauss, & Midlarsky, 2013) suggested that this scale format was appropriate to measure perceived boundaries in the context of consumer-brand relationships.

Following the practice block, participants were randomly assigned to two of 44 brands. These brands were drawn from utilitarian (e.g., toilet paper, stomach medicine), symbolic (e.g., jeans, cosmetics), and symbolic-utilitarian (e.g., automobiles, shoes) product categories, and had been used as target brands in prior research (Aaker, 1997; Grohmann, 2009).

For each brand, participants completed the consumer-brand boundary measure, and measures of brand awareness (I know/am familiar with the brand; $r = .92$), perceived affordability (I can afford this brand), prior usage (I have used this brand before), brand masculinity and femininity perceptions (MBP/FBP; $\alpha_{MBP} = .89$, $\alpha_{FBP} = .93$; Grohmann, 2009), self-brand connection ($\alpha = .97$; Escalas & Bettman, 2003), brand attachment ($\alpha = .98$; Thomson, MacInnis, & Park, 2005), brand trust ($\alpha = .86$; Chaudhuri & Holbrook, 2001), brand affect ($\alpha = .95$; Chaudhuri & Holbrook, 2001), global brand attitude (1 = negative/dislike/unfavorable, 7 = positive/like/favorable; $\alpha = .97$), brand preference ($\alpha = .97$), purchase intention ($\alpha = .98$; Sirgy et al., 1997), attitudinal brand loyalty ($\alpha = .90$; Chaudhuri & Holbrook, 2001), behavioral brand loyalty ($\alpha = .94$; Chaudhuri & Holbrook, 2001), likelihood of recommendation (1 =

unlikely/improbable, 7 = likely/probable; $r = .98$), and word-of-mouth communication ($\alpha = .94$; Kim, Han & Park, 2001). Participants then completed the brand engagement in self-concept scale (BESC; $\alpha = .92$; Sprott, Czellar, & Spangenberg, 2009) and gender identity scale (MTI/FTI; $\alpha_{MTI} = .91$, $\alpha_{FTI} = .94$; Stern, Barak, & Gould, 1987). All measures were on seven-point scales and are summarized in Appendix 1. The questionnaire concluded with an attention check question and demographic questions.

Results

The lowest score on the consumer-brand boundary measure (1 = completely independent) is indicative of a thick boundary between consumers and the target brand, whereas the highest score (7 = no separation) suggests that consumer and brand are merged. The measure was therefore reverse scored prior the analysis, such that a greater score refers to a greater (i.e., thicker) perceived consumer-brand boundary. Table 1 lists the brands and their corresponding consumer-brand boundary ratings.

TABLE 1
CONSUMER-BRAND BOUNDARY (STUDY 1)

Brand	Mean	SD	Brand	Mean	SD
Best Western hotels	5.20	1.87	Marriott hotels	4.60	2.19
Cover Girl cosmetics	6.18	1.53	Revlon cosmetics	5.95	1.43
Aquafresh toothpaste	5.43	1.83	Sensodyne toothpaste	5.73	1.53
Staples stores	5.42	1.73	Best Buy stores	5.11	1.77
Lexus automobiles	5.82	1.74	Porsche automobiles	6.20	1.28
Reebok athletic shoes	6.00	1.41	Nike athletic shoes	4.07	1.75
Tylenol pain reliever	4.37	1.97	Advil pain reliever	4.58	1.50
AT&T phone service	5.50	1.38	Bell phone service	6.31	1.28
Panasonic televisions	5.85	1.38	Sony televisions	5.33	1.58
Apple computers	4.40	2.12	Dell computers	5.89	1.19
Wrangler jeans	5.80	1.20	American Express credit card	5.90	1.58
BP gas stations	6.11	1.19	Shell gas stations	5.52	1.36
Gatorade sports drink	5.12	1.53	Aquafina water	5.12	1.56
Budweiser beer	6.00	1.38	Heineken beer	5.26	1.88
Absolut vodka	6.08	1.35	Bacardi rum	5.96	1.36
Starbucks coffee	4.40	1.97	Haagen-Dazs ice cream	5.39	1.53
Lysol cleaner	4.91	1.41	Pine Sol cleaner	5.72	1.77
Kleenex facial tissue	5.20	1.47	Scotties facial tissue	5.96	1.37
Scott toilet paper	4.48	1.95	Charmin toilet paper	4.57	1.39
Cheer laundry detergent	6.05	1.43	Arm & Hammer laundry detergent	5.20	1.76
Benadryl allergy medicine	5.15	1.84	Claritin allergy medicine	5.48	1.78
Tums Ex stomach medicine	5.55	1.71	Pepcid AC stomach medicine	6.20	1.03

Relation Between Consumer-brand Boundary and Brand-related Consumer Responses

A factor analysis confirmed that only one factor was extracted for each scale, and that all items loaded on their respective factor. A correlation analysis indicated significant and negative correlations between consumer-brand boundary and other measures (see Table 2). Consumer-brand boundary thus relates negatively to consumer responses to the brand.

TABLE 2
BOUNDARY – CONVERGENT AND DISCRIMINANT VALIDITY (STUDY 1)

	AVE*	r**	95%CI _{lower}	95%CI _{upper}	r ²	Φ ± SE	χ ² _{Δdf=1} **
Awareness	-	-.243	-.303	-.180	.059	.179 (.037)	2093.693
Affordability	.388	-.241	-.302	-.178	.058	.652 (.024)	740.996
Purchase history	-	-.425	-.477	-.370	.181	.417 (.028)	-
Brand trust	.585	-.490	-.538	-.438	.240	.389 (.027)	1926.059
Brand affect	.781	-.578	-.620	-.533	.334	.516 (.021)	2329.678
Global attitude	.847	-.401	-.454	-.345	.160	.327 (.024)	3404.688
Brand preference	.847	-.447	-.498	-.393-	.199	.360 (.023)	3341.506
Purchase intention	.493	-.552	-.596	-.505	.304	.448 (.043)	1459.991
Attitudinal brand loyalty	-	-.645	-.681	-.605	.416	.565 (.023)	-
Behavioral brand loyalty	-	-.586	-.628	-.542	.343	.324 (.032)	1059.412
Likelihood of recommendation	-	-.506	-.553	-.455	.256	.065 (.015)	1898.806
Word-of-mouth	.683	-.627	-.665	-.586	.393	.539 (.021)	1205.847
Self-brand connection	.686	-.682	-.715	-.645	.465	.571 (.018)	5081.180
Brand attachment	.685	-.629	-.677	-.588	.396	.616 (.021)	1999.605
BESC	.553	-.238	-.297	-.174	.057	.238 (.031)	4386.114

Note: *for identified measurement models. ** all p s < .001

Discriminant and Convergent Validity

The magnitude of correlations supports convergent and discriminant validity between consumer-brand boundary and self-brand connection, brand attachment, and BESC scales. Correlations between boundary and self-brand connection (Pearson correlation $r = -.68$, $p < .001$), brand attachment ($r = -.63$, $p < .001$), and BESC ($r = -.24$, $p < .001$) were negative and significant. Discriminant validity was supported in that the confidence intervals around correlations and construct variances did not include 1, average variance extracted exceeded the squared correlations between constructs, and the χ^2 -difference tests of one- versus two-factor models showed significantly better fit for two-factor models (Fornell & Larcker, 1981; see Table 2). Overall, this pattern of results suggests that consumer-brand boundary converges (in a negative sense) with other measures of consumer-brand relationships, but constitutes a different construct, such that correlations with such measures are moderate.

Hypothesis Tests

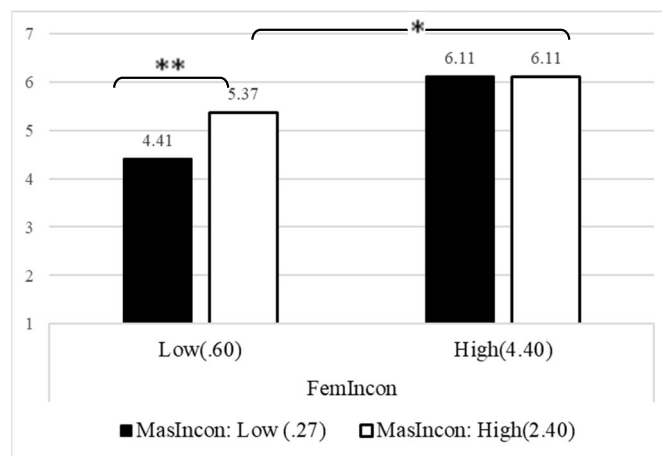
Study 1 also examined whether greater incongruence between brand masculinity and femininity perceptions and consumers' masculine and feminine self-identity is associated with greater consumer-brand boundary perceptions. Two distance scores between masculine and feminine brand gender (MBP/FBP) and masculine and feminine gender identity (MTI/FTI) were generated for each participant. |MBP-MTI| and |FBP-FTI| represented masculinity incongruence and femininity incongruence between the consumer and the target brand, respectively, with higher values reflecting greater incongruence.

In a PROCESS model (model 1; Hayes, 2017), the absolute value of the two distance scores were entered as predictor (masculinity incongruence) and moderator (femininity incongruence), and consumer-brand boundary as the criterion. In support of H1, the path coefficient for masculinity incongruence was positive and significant (.52, 95% CI = [.33, .71]), as was the path coefficient for femininity incongruence (.48, 95% CI = [.39, .57]). The path coefficient for the interaction was negative and significant (-.12, 95% CI = [-.17, -.06]). The conditional effect of masculinity incongruence on consumer-brand boundary was significant at low levels of femininity incongruence (.60; conditional effect = .45, se = .08; 95% CI [.29; .61]) and the mean value of femininity incongruence (2.50; conditional effect = .23, se = .05; 95% CI [.13; .32]). The conditional effect of masculinity incongruence was not significant at high levels of femininity incongruence (4.40; conditional effect = -.001, se = .07; 95% CI [-.14; .13]), however. The femininity incongruence value delimiting the significant effect of masculinity incongruence on consumer-brand boundary (i.e., Johnson-Neyman region of significance) was 3.49. This suggests that masculinity

incongruence increased consumer-brand boundary perceptions at low, but not high levels of femininity incongruence and is consistent with H2.

Figure 2 illustrates the effect of low versus high levels of masculinity incongruence on consumer-brand boundary at the 16th and 84th percentile of femininity incongruence. When femininity incongruence was low ($M_{low\ fem} = .60$), higher values of masculinity incongruence ($M_{high\ masc} = 2.40$ vs. $M_{low\ masc} = .27$) resulted in greater consumer-brand boundary ($M_{low} = 4.41$ vs. $M_{high} = 5.37$, $p < .001$); when the value of femininity incongruence was high ($M_{high\ fem} = 4.40$), higher value of masculinity incongruence did not significantly affect boundary ($M_{high} = 6.11$ vs. $M_{low} = 6.11$, $p = .98$). These results support the hypotheses that greater incongruence between brand gender and consumers' gender identity is associated with thicker consumer-brand boundary (H1), and that masculinity and femininity incongruence interactively influence boundary (H2).

FIGURE 2
EFFECT OF FEMININITY AND MASCULINITY INCONGRUENCE ON BOUNDARY



Note: Values at the 16th and 84th percentiles. ** $p < .001$, * $p < .05$.

Discussion

Study 1 introduced a consumer-brand boundary measure, which correlated negatively with brand awareness, brand trust, brand affect, brand attitude, brand preference, purchase intention, brand loyalty, likelihood of recommendation, and WOM. It provided evidence for the discriminant and convergent validity between consumer-brand boundary and self-brand connection, self-brand attachment, and BESC scales. Furthermore, Study 1 shows that self-brand gender identity incongruence is positively associated with consumer-brand boundary (H1). Low masculinity and femininity incongruence result in a thinner consumer-brand boundary. When femininity incongruence is high, however, the consumer-brand boundary increases, regardless of whether masculinity incongruence is low or high (H2). Based on these results, Study 2 uses an experimental design to examine the mediating role of consumer-brand boundary in the relation between gender incongruence and consumer responses to the brand (H3).

Study 2

Study 2 sought to replicate the interactive effect of masculinity and femininity incongruence in the context of fictitious brands designed to vary in brand gender. An experimental approach involving fictitious brands was taken to rule out confounds based on prior brand knowledge. This study also examined the mediating role of boundary in the relation between masculinity and femininity incongruence and consumer responses to the brand (H3).

Pretest

A pretest examined the effectiveness of the experimental brand gender manipulations used to elicit variations in brand gender incongruence in study 2. Sixty North American MTurk participants completed an online questionnaire in exchange for \$.50. After elimination of responses from participants who failed the attention check question, the analysis was based on a sample of 55 participants (50.86% female; $M_{age} = 40.84$; $SD = 11.45$).

The pretest employed a 2 (between: product category: iced tea, deodorant) \times 6 (within: package color) \times 2 (within: package shape: curved, square) mixed experimental design. Stimuli consisted of branded product images representing two widely consumed categories (i.e., iced tea, deodorant). Based on prior research (Fugate & Phillips, 2010; Van Tilburg et al., 2015), different package colors (iced tea: black, blue, grey, green, yellow, pink; deodorant: black, blue, grey, white, yellow, pink) and shapes (i.e., curved, square) were used to elicit gender perceptions. A gender-neutral type font (Arial; Grohmann, 2016) was applied to all stimuli.

Participants were randomly assigned to one of the two product categories and rated the branded products—which were presented in random order—in terms of gender perceptions (1 = not at all feminine/not at all masculine, 7 = very feminine/very masculine), typical user associations (1 = definitely not used by women/men, 7 = definitely used by women/men), and evaluation (1 = negative/dislike/unfavorable, 7 = positive/like/favorable; $\alpha = .98$). The questionnaire concluded with an attention check question and demographic questions. Table 3 shows means of masculinity and femininity perceptions and evaluation of the products.

TABLE 3
BRAND MASCULINITY, FEMININITY AND EVALUATIONS (STUDY 2 PRETEST)

Iced tea (N = 26)	Femininity (SD)	Masculinity (SD)	Evaluation (SD)	Deodorant (N = 29)	Femininity (SD)	Masculinity (SD)	Evaluation (SD)
Black, C	3.92 (1.62)	4.96 (1.63)	5.28 (1.70)	Black, C	3.19 (1.42)	5.26 (1.47)	4.46 (1.57)
Blue, C	3.23 (1.33)	5.56 (1.38)	5.12 (1.90)	Blue, C	2.36 (1.08)	5.76 (1.00)	4.47 (1.42)
Green, C	4.35 (1.16)	4.56 (1.31)	5.56 (1.48)	Grey, C	4.69 (1.21)	3.59 (1.12)	4.78 (1.24)
Grey, C	3.94 (1.33)	5.19 (0.99)	5.05 (1.50)	Pink, C	4.36 (1.44)	3.76 (1.39)	4.80 (1.25)
Yellow, C	4.79 (1.28)	4.35 (1.28)	5.42 (1.34)	White, C	3.60 (1.34)	4.69 (1.39)	4.38 (1.31)
Pink, C	4.15 (1.26)	4.75 (1.23)	5.51 (1.28)	Yellow, C	3.12 (1.45)	5.02 (1.28)	4.46 (1.26)
Black, S	4.00 (1.49)	4.65 (1.59)	5.10 (1.59)	Black, S	6.10 (0.91)	1.93 (1.05)	4.63 (1.33)
Blue, S	3.69 (1.32)	5.21 (1.24)	4.96 (1.55)	Blue, S	6.07 (1.01)	1.98 (1.11)	4.61 (1.39)
Green, S	5.48 (0.99)	3.65 (1.35)	5.50 (1.24)	Grey, S	4.22 (1.30)	4.17 (1.26)	4.47 (1.22)
Grey, S	5.12 (1.16)	3.90 (1.22)	5.29 (1.29)	Pink, S	4.22 (1.38)	4.12 (1.41)	4.70 (1.29)
Yellow, S	6.65 (0.61)	1.73 (1.06)	5.09 (1.72)	White, S	5.53 (1.27)	2.57 (1.19)	4.51 (1.35)
Pink, S	6.71 (0.53)	1.58 (0.88)	4.85 (1.62)	Yellow, S	5.28 (1.17)	2.93 (1.25)	4.61 (1.35)

Note: Package shape – C = curved, S = square

For each product category, a 6 (package color) \times 2 (package shape: curved, square) repeated measures MANOVA included femininity and masculinity perceptions, typical user associations, and evaluation. For iced tea, there was no interaction of package color and shape on masculinity and femininity perceptions, typical user associations, and evaluation ($ps > .14$). Color had a significant main effect on femininity ($F(5, 125) = 47.38, p < .001$, partial $\eta^2 = .65$) and masculinity perceptions ($F(5, 125) = 56.24, p < .001$, partial $\eta^2 = .69$), but did not impact evaluation or typical user associations ($ps > .46$). Package shape had a significant main effect on femininity ($F(1, 25) = 6.08, p = .02$, partial $\eta^2 = .19$) and masculinity perceptions ($F(1, 25) = 6.32, p = .01$, partial $\eta^2 = .20$), but not evaluation or typical user associations ($ps > .25$).

For deodorants, there was no interaction of package color and shape on masculinity and femininity perceptions, typical user associations, and evaluation ($ps > .09$). Color had a significant main effect on femininity ($F(5, 140) = 47.89, p < .001$, partial $\eta^2 = .63$) and masculinity perceptions ($F(5, 140) = 55.31, p$

< .001, partial $\eta^2 = .66$), but not evaluation or typical user association ($ps > .33$). Package shape had a significant main effect on femininity ($F(1, 28) = 4.41, p = .04$, partial $\eta^2 = .13$), but not on masculinity, evaluation and typical user associations ($ps > .15$). When participants' sex was entered as a between-participants factor, there were no significant main or interaction effects on masculinity and femininity perceptions in either product category ($ps > .05$).

Pretest analyses concluded with a series of one-sample t-tests (against scale mid-point [4] of the masculinity and femininity scales) to identify the stimuli that were perceived as masculine, feminine, or neutral. As a result, iced tea packaging in black (masculine), pink (feminine), and green (neutral), and deodorant packaging in black (masculine), pink (feminine), and white (neutral), in both curved and square shapes were retained. Based on the pretest results, twelve product images (six brand designs in the iced tea and deodorant categories; see Appendix 2) that showed clear masculine, feminine, or neutral gender associations, but did not differ in evaluations were used as experimental manipulations of brand gender in study 2.

Participants, Procedures, and Measures

A sample of 316 North American MTurk workers participated in study 2 for a compensation of \$1.00. After eliminating data from participants who failed the attention check question, the final sample size was 297 (52.19% male; $M_{age} = 36.51$; $SD = 11.50$). Participants completed practice trials for the use of the boundary measure (for Google doc, Amazon TV cast, Coca-Cola Zero, and WWF shampoo), and were then randomly assigned to one condition in a 2 (product category: ice tea, deodorant) \times 2 (package shape: curved, square) \times 3 (color: masculine, feminine, neutral) between participants design. Participants completed measures of consumer-brand boundary, perceived masculine/feminine brand personality (MBP & FBP scale; Grohmann, 2009), perceived product masculinity/femininity, and eleven brand-related consumer responses (i.e., brand trust, brand affect, brand attitude, brand preference, purchase intention, attitudinal brand loyalty, behavioral brand loyalty, likelihood of recommendation, WOM, self-brand connection, and brand attachment). Participants provided ratings of their masculine and feminine gender identity (MTI/FTI; Stern, Barak, & Gould, 1987), and demographic information.

Results

The results of reliability tests and principal factor analyses of multi-item measures supported adequate reliability and validity, and the averaged scale score was computed to represent each construct. The correlation of gender-related variables show significant and positive correlations between MBP, perceptions of usage by men, and masculine product perceptions ($rs > .26, p < .001$), significant and positive correlations among FBP, perceptions of usage by women, and product femininity perceptions ($rs > .34, p < .001$), and negative correlations between masculinity (i.e., usage by men, masculinity perceptions) and femininity related variables (i.e., usage by women, femininity perceptions; all $rs < -.49, p < .001$).

Manipulation Check

A 2 (product category: iced tea, deodorant) \times 2 (product shape: curved, square) \times 3 (color: feminine, masculine, neutral) MANOVA verified the intended effect of the experimental manipulations on brand masculinity and femininity. Color had a significant main effect on brand gender (brand masculinity: $F(2, 285) = 7.40, p = .001$, partial $\eta^2 = .049$; brand femininity: $F(2, 285) = 13.01, p < .001$, partial $\eta^2 = .084$). Package shape did not affect brand gender perceptions ($ps > .09$). Product category had a main effect on brand femininity ($F(1, 285) = 3.94, p = .04$, partial $\eta^2 = .014$), but not on masculinity ($p = .15$). No interactions between independent factors emerged ($ps > .07$), except for an interaction between product category and color on brand masculinity ($F(2, 285) = 6.00, p = .003$, partial $\eta^2 = .04$). Because product served as a between-participants replicate and was not implicated in hypothesis tests, these effects were not considered problematic.

When participants' sex was included in the analysis, there was a main effect of participants' sex on brand femininity perceptions ($F(2, 271) = 3.02, p = .051$, partial $\eta^2 = .02$), such that men generally reported greater perceptions of brand femininity than women ($M_{men} = 3.49, se = .13$; $M_{women} = 3.02, se = .14$;

Bonferroni corrected $p = .045$, Bonferroni corrected 95% CI = [.008, .933]). Participants' sex did not interact with other factors ($ps > .08$). Participants' sex was not a factor implicated in the hypothesis tests, as gender incongruence was calculated based on participants' self-reports on the gendered trait index (FTI and MTI; Stern, Barak, & Gould, 1987), the main effect of sex was thus not considered problematic.

In sum, brand masculinity and femininity were successfully manipulated by package color, whereas product category and package shape did not have consistent effects. It is important to note that the experimental manipulations of brand masculinity and femininity aimed at generating variance in consumers' brand gender perceptions and were not employed as predictors in the hypothesis tests. The subsequent analysis considered the effect of measured masculinity and femininity incongruence on consumer responses to the brand.

Hypotheses Test

A series of moderated mediation models (model 7, 10,000 samples; Hayes, 2017; see Figure 3) tested the relation between masculinity and femininity incongruence, consumer-brand boundary, and consumer responses to the brand. Two distance scores between masculine and feminine brand gender (MBP/FBP) and masculine and feminine self-identity (MTI/FTI) were generated for each participant. |MBP-MTI| and |FBP-FTI| represented masculinity incongruence (MI) and femininity incongruence (FI) between the consumer and the brand, respectively, with higher values reflecting greater incongruence. Masculinity incongruence served as predictor, and femininity incongruence as moderator, boundary as the mediator, and each of the consumer responses as the criterion.

Prior to discussing the mediated moderations models (H3), we report the results regarding the relation between masculinity and femininity incongruence and consumer-brand boundary (H1, H2). These paths remained consistent, as only the criterion changed across models. In support of H1, the path coefficient for masculinity incongruence was again positive and significant ($b_{a1} = .55$, 95% CI = [.33, .77]), as was the path coefficient for femininity incongruence ($b_{a2} = .46$, 95% CI = [.30, .62]). The path coefficient for the interaction was negative and significant ($b_{a3} = -.10$, 95% CI = [-.17, -.02]). The conditional effect of masculinity incongruence on consumer-brand boundary was significant at low levels of femininity incongruence (.39; conditional effect = .51, se = .10; 95% CI [.31, .71]), as well as at the mean value of femininity incongruence (1.87; conditional effect = .37, se = .07; 95% CI [.23, .50]). The conditional effect of masculinity incongruence was not significant at high levels of femininity incongruence (4.10; conditional effect = .15, se = .09; 95% CI [-.03, .33]), however. The femininity incongruence value delimiting the significant effect of masculinity incongruence on consumer-brand boundary (i.e., Johnson-Neyman region of significance) was 3.88. In line with H2, this suggests that when femininity incongruence is low, higher masculinity incongruence is associated with a thicker consumer-brand boundary; when femininity incongruence is high, masculinity incongruence does not significantly relate to consumer-brand boundary.

FIGURE 3
CONCEPTUAL FRAMEWORK AND STATISTICAL DIAGRAM (STUDY 2)

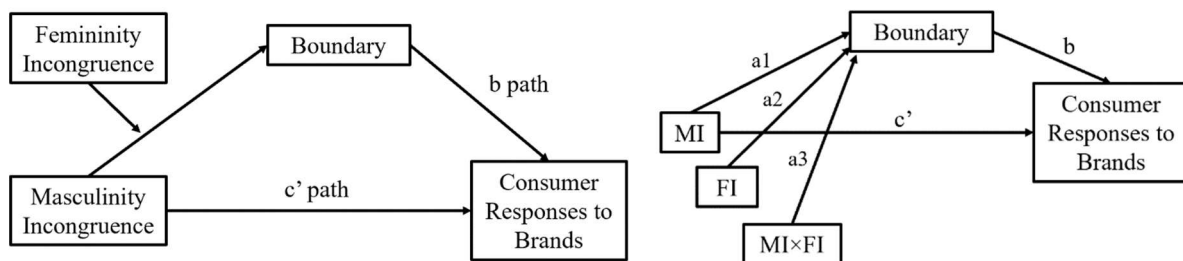
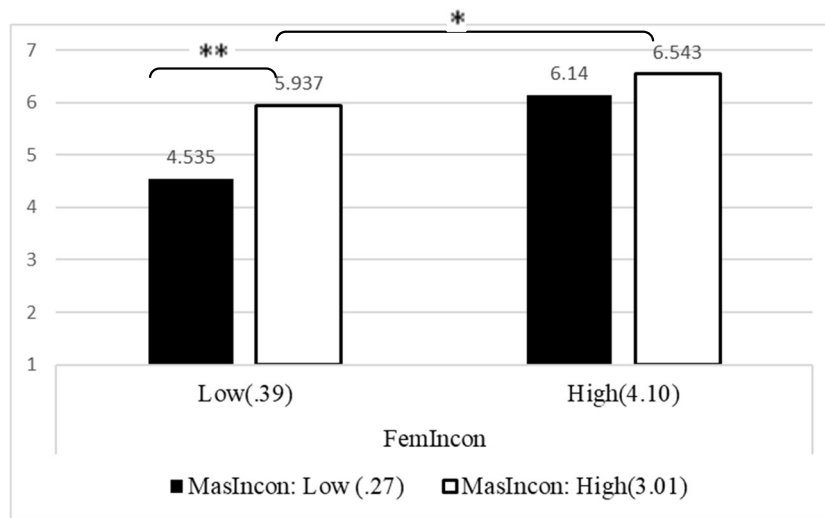


FIGURE 4
THE INTERACTIVE EFFECT OF FEMININITY AND MASCULINITY INCONGRUENCE



Note: Values at the 16th and 84th percentiles. ** $p < .001$, * $p < .05$.

Figure 4 illustrates the spotlight analysis of the effect of masculinity incongruence on consumer-brand boundary at 16th and 84th percentiles of femininity incongruence. When femininity incongruence was low ($M_{low\ fem} = .39$), higher values of masculinity incongruence ($M_{high\ masc} = 3.01$ vs. $M_{low\ masc} = .27$) increased consumer-brand boundary ($M_{low} = 4.54$ vs. $M_{high} = 5.94$, $p < .001$); when the value of femininity incongruence was high ($M_{high\ fem} = 4.10$), higher value of masculinity incongruence did not significantly affect boundary ($M_{low} = 6.14$ vs. $M_{high} = 6.54$, $p = .11$).

Second, all moderated mediation models support the hypothesized mediating role of consumer-brand boundary. Table 4 shows path coefficients and indices of moderated mediation, as well as confidence intervals. The indices of moderated mediation do not include 0, which indicates that the interaction between masculinity and femininity incongruence on consumer responses to the brand is mediated by consumer-brand boundary. This supports H3.

Finally, we reran the moderated mediation models (model 7 with 10,000 samples, Hayes, 2017) after reversing the predictor and moderator, such that femininity incongruence (FI) served as predictor and masculinity incongruence (MI) as the moderator. The results summarized in Table 4 show consistently significant indices of moderated mediation. Overall, the association between gender incongruence and consumer-brand boundary (H1), and the interactive effect of femininity and masculinity incongruence on boundary (H2) were replicated in study 2. The mediating role of boundary was also supported (H3).

Discussion

Study 2 used an experimental design to elicit varying levels of brand masculinity and femininity and shows that the relation between consumer-brand gender incongruence and boundary is robust. Results again support that the effect of masculinity incongruence is contingent upon the level of femininity incongruence, such that the impact of masculinity incongruence weakens when the femininity incongruence is high (versus low). This interaction pattern suggests that at high levels of femininity incongruence, the effect of masculinity incongruence on boundary is mitigated. Finally, the mediation effects of boundary on the interactive relation between the masculinity and femininity incongruence and brand-related consumer responses was supported.

TABLE 4
SUMMARY OF RESULTS (MODEL 7; STUDY 2)

Criterion	W	b path	c' path	Conditional Indirect Effects of X on Y: (a1+a3W)b			Index of moderated mediation (a3b)
				c1 (W = low)	c2 (W = medium)	c3 (W = high)	
Brand trust (Y1)	FI	-.36**	-.04	-.18, CI = (-.26, -.11)	-.13, CI = (-.18, -.08)	-.05, CI = (-.11, .001)	.03, CI = (.01, .06)
	MI	-.33**	-.11*	-.14, CI = (-.20, -.08)	-.11, CI = (-.16, -.07)	-.05, CI = (-.10, -.01)	.03, CI = (.01, .05)
Brand affect (Y2)	FI	-.48**	-.13*	-.25, CI = (-.34, -.15)	-.18, CI = (-.24, -.11)	-.07, CI = (-.15, .002)	.04, CI = (.01, .08)
	MI	-.44**	-.21**	-.19, CI = (-.26, -.12)	-.15, CI = (-.21, -.10)	-.07, CI = (-.13, -.02)	.03, CI = (.01, .05)
Brand attitude (Y3)	FI	-.33**	-.07	-.17, CI = (-.24, -.09)	-.12, CI = (-.17, -.07)	-.05, CI = (-.10, .002)	.03, CI = (.01, .06)
	MI	-.31**	-.09	-.13, CI = (-.19, -.08)	-.11, CI = (-.15, -.06)	-.05, CI = (-.09, -.01)	.03, CI = (.01, .05)
Preference (Y4)	FI	-.33**	-.02	-.17, CI = (-.25, -.10)	-.12, CI = (-.18, -.07)	-.05, CI = (-.11, .002)	.03, CI = (.01, .06)
	MI	-.29**	-.11*	-.13, CI = (-.18, -.07)	-.10, CI = (-.15, -.06)	-.05, CI = (-.09, -.01)	.03, CI = (.01, .05)
Purchase intention (Y5)	FI	-.71**	-.12	-.36, CI = (-.49, -.23)	-.26, CI = (-.35, -.17)	-.11, CI = (-.21, .01)	.07, CI = (.02, .12)
	MI	-.66**	-.22**	-.28, CI = (-.40, -.18)	-.23, CI = (-.32, -.15)	-.11, CI = (-.19, -.02)	.06, CI = (.02, .11)
Attitudinal brand loyalty (Y6)	FI	-.60**	-.23**	-.31, CI = (-.43, -.19)	-.22, CI = (-.31, -.14)	-.08, CI = (-.18, .003)	.06, CI = (.02, .10)
	MI	-.59**	-.18**	-.25, CI = (-.37, -.16)	-.20, CI = (-.28, -.13)	-.09, CI = (-.17, -.02)	.06, CI = (.01, .10)
Behavioral brand loyalty (Y7)	FI	-.61**	-.15*	-.31, CI = (-.43, -.19)	-.22, CI = (-.31, -.14)	-.07, CI = (-.18, .008)	.06, CI = (.02, .10)
	MI	-.57**	-.22**	-.24, CI = (-.34, -.15)	-.19, CI = (-.27, -.12)	-.09, CI = (-.16, -.02)	.05, CI = (.01, .09)
Likelihood of recommendation (Y8)	FI	-.68**	-.19*	-.34, CI = (-.47, -.22)	-.24, CI = (-.34, -.16)	-.10, CI = (-.20, .008)	.06, CI = (.02, .11)
	MI	-.67**	-.17*	-.28, CI = (-.38, -.18)	-.22, CI = (-.31, -.15)	-.11, CI = (-.19, -.02)	.06, CI = (.02, .11)
Word-of-mouth (Y9)	FI	-.60**	-.15*	-.31, CI = (-.43, -.19)	-.22, CI = (-.30, -.14)	-.08, CI = (-.18, .006)	.06, CI = (.02, .10)
	MI	-.55**	-.25**	-.23, CI = (-.33, -.14)	-.18, CI = (-.26, -.11)	-.09, CI = (-.16, -.02)	.05, CI = (.02, .09)
Self-brand connection (Y10)	FI	-.59**	-.17*	-.30, CI = (-.42, -.18)	-.21, CI = (-.29, -.14)	-.08, CI = (-.17, .004)	.06, CI = (.02, .10)
	MI	-.55**	-.23**	-.24, CI = (-.33, -.15)	-.18, CI = (-.26, -.12)	-.09, CI = (-.16, -.02)	.05, CI = (.01, .09)
Self-brand attachment (Y11)	FI	-.58**	-.28**	-.29, CI = (-.42, -.18)	-.21, CI = (-.29, -.14)	-.08, CI = (-.17, .005)	.06, CI = (.02, .10)
	MI	-.49**	-.40**	-.21, CI = (-.31, -.13)	-.17, CI = (-.24, -.11)	-.08, CI = (-.15, -.02)	.05, CI = (.01, .08)

Note: ** $p < .001$, * $p < .05$. The effects in **bold** indicate the 95% confidence interval does not include 0.

MI = Masculinity incongruence, FI = Femininity incongruence; W = moderator;

b path = $M \rightarrow Y$, c' path = $X (MI/FI) \rightarrow Y$ (direct effect);

a1 = $X \rightarrow Y$, a2 = $W \rightarrow Y$, and a3 = $XW \rightarrow Y$;

c1/c2/c3 path = (a1+a3W)b = X (MI/FI) \rightarrow Y (conditional indirect effect of X at W = low / medium / high)

When FI is the moderator (W), FI (low) = .39, FI (average) = 1.87, FI (high) = 4.10; When MI is the moderator (W), MI (low) = .26, MI (average) = 1.17, MI (high) = 2.98.

GENERAL DISCUSSION

Building on the literature on self-brand relationships and boundaries, this article introduces the notion of consumer-brand boundary and demonstrates how consumer-brand boundaries are elicited by consumer-brand gender incongruence. Consumer-brand boundary is defined as the perceived psychological distance between a consumer and a brand. Study 1 introduced and validated a measure of consumer-brand boundary. It established its convergent and discriminant validity with regard to other brand relationship constructs, and its correlations with consumer-related responses. It also showed that masculinity and femininity incongruence between consumers and a focal brand and the interaction between masculinity and femininity incongruence influence boundary. Study 2 replicates the relation between masculinity and femininity incongruence and their interaction on boundary in an experimental context and shows that boundary mediates their relation to affective, attitudinal, behaviorally oriented, and relational consumer responses to the brand.

Results show that—as expected—consumer-brand boundary correlates negatively with brand awareness, affordability, and purchase history, and a range of consumer responses to the brand, including brand trust, attitude, loyalty, and word-of-mouth recommendations. Consumer-brand boundary shows negative association and discriminant validity with regard to self-brand connection, brand attachment, and BESC.

The influence of incongruence between consumers' and brands' masculinity and femininity on boundary emerges in the context of existing brands (study 1) and unknown (fictitious) brands experimentally manipulated to vary in terms of brand masculinity and femininity (study 2). This research specifically examines the interactive effect of masculinity and femininity incongruence on boundary and finds that the influence of masculinity incongruence is contingent upon levels of femininity incongruence. When femininity incongruence is low, lower levels of masculinity decrease boundary; when feminine incongruence is high, a decrease in masculinity incongruence does not decrease boundary, however. Study 2 shows that boundary mediates the moderated relation between masculinity and femininity incongruence and consumer responses to the brand. Consistent results support that masculinity/femininity incongruence relate positively to boundary, but that the effect of masculinity incongruence weakens when the femininity incongruence is high. Overall, the moderated mediation model is supported, and the effects of masculinity and femininity incongruences on consumer responses are consistent.

Theoretical Contributions

This research makes two contributions. The first relates to the development of the notion of consumer-brand boundary as the perceived separation between the brand and a consumer's psychological space. Consumer-brand boundary ranges from thick (i.e., complete distancing of the brand from the self) to thin (i.e., merging of brand and self). Although research on consumer-brand relationships draws to a great extent on self-expansion theories in the social psychology literature, which focuses mainly on the relatedness of self to others, the psychology literature also acknowledges the need to consider separateness as a distinct developmental concern (Laing, 1965; Strawson, 1997, 1999). From a psychological standpoint, a certain degree of individual separateness is desirable, and the maintenance of boundaries aids in precluding negative effects of enmeshment in interpersonal relationships. If interpersonal relationships serve as a metaphor of how consumers relate to brands (Fournier, 1998), a consideration of consumer-brand boundaries promises to add interesting insights into consumers' relationships with brands, and the possible negative impact of relationships that do not offer such boundaries (e.g., relationships labeled "enslavements;" Fournier, 1998). To support further theory development regarding the role of consumer-brand boundary in consumers' relationships with brands, this research introduced and validated a consumer-brand boundary measure, provided an initial assessment of its convergent and discriminant validity, and then applied it to an examination of consumer-brand boundary as a function of femininity and masculinity incongruence between consumer and brand. Findings of validity tests as well as the support of predictions regarding the role of consumer-brand boundary in the relation between masculinity and femininity

incongruence and brand-related responses suggest that the measure adequately captures the construct, but also that consumer-brand boundary has the potential to elucidate consumer responses to brands.

This research also contributes to the literature on gender effects. Research has focused on the positive effects of congruence between consumers' gender identity and brand gender perceptions and provides evidence for positive congruence effects on consumers' responses to brands (Grohmann, 2009; Lieven & Hildebrand, 2016). Whereas the investigation of brand gender congruence effects is still limited in the literature, the role of gender incongruence has received even less attention. In the context of consumer acceptance of gender incongruent brands, Neale and colleagues (2016) found, however, that consumers with a masculine self-concept rejected feminine brands to a greater extent, whereas consumers with a feminine self-concept were more accepting of masculine brands. To this stream of research, this article provides two additional insights. First, it shows that masculinity and femininity incongruence have significant and consistent negative effects on a comprehensive range of affective (i.e., brand trust, affect), attitudinal (i.e., brand attitude, preference, attitudinal brand loyalty), behaviorally oriented (i.e., behavioral brand loyalty, likelihood of recommendation, word of mouth, purchase intentions) and relational (i.e., brand-self connection, brand attachment) consumer responses. Second, this research finds that a significant impact on consumer-brand boundary and consumer responses to the brand occurs for both masculinity and femininity incongruence, but also considers the interactive effect of masculinity and femininity incongruence, as consumers vary in the extent to which they experience incongruence along both dimensions. The two studies show a consistent interaction pattern: High levels of femininity incongruence increase consumer-brand boundary and negatively impact consumer responses to the brand, even if masculinity incongruence is low. The documentation of an interactive effect of masculinity and femininity incongruence is novel and adds to the discussion of potential detrimental effect of brand gender incongruence on consumer responses to brands.

Managerial Implications

The managerial implications of this research are twofold. First, this research introduced a measure of consumer-brand boundary and provides evidence of its convergent, discriminant, and nomological validity. This measure of consumer-brand boundary consists of a single item Venn-diagram scale that is easy to administer. This measure can serve as a diagnostic tool to assess the extent to which consumers perceive a thick boundary between themselves and the brand. If a thick consumer-brand boundary is observed, there is potential to enhance consumer responses to the brand. While this may be difficult, results of this research also indicate that if brands succeed in mitigating consumer-brand boundaries, positive affective, cognitive, behavioral and relational consumer responses ensue.

This article also shows that this measure is useful in predicting consumers' responses to existing and new brands. The latter finding suggests that this measure may be helpful in the exploration of consumer reactions to new brands or brand extensions if the goal is to preclude avoidant responses due to strong boundary perceptions. For example, compared to millennials or generation Z, baby boomers may perceive much greater boundaries with regard to innovative technology brands, or complex technological brand extensions (e.g., home electronics developed by Apple, Google, or Microsoft).

Secondly, the results regarding the impact of gender incongruence on boundary and consumer responses to the brand indicate that when brand managers evaluate a brand's package or logo design—either in the context of a modification or a newly developed offering—a consideration of resulting brand gender impressions is important. In order to generate or maintain positive consumer responses, incongruence between perceived brand gender and the target segment's gender identity should be minimized. In product categories and for brands that do not specifically target consumer segments high in masculinity and low in femininity, or vice versa, it is critical to avoid the creation of gender incongruence—particularly with regard to femininity incongruence. In gender-identity sensitive product categories (e.g., skin-care products, make-up, and clothing), knowledge of the target segments' gender identity along with an assessment of brand gender perceptions are necessary to ascertain that gender incongruence between the brand and target consumers is minimized.

Limitations and Future Research Directions

This research introduces the notion of consumer-brand boundary to the marketing literature and demonstrates its usefulness in shedding light on consumers' responses to and relationships with brands. To this end, this article reported the development of a single-item measure of consumer-brand boundary. This format is useful for an application in theory testing and managerial practice, in that it captures consumers' holistic perceptions of a boundary and is easy to administer. The results of the convergent and discriminant validity tests indeed suggest that the measure adequately captures the construct. The psychology literature suggests, however, that boundary is a complex theoretical construct and may be multifaceted (e.g., soft, spongy, rigid, or flexible; Brown, 2006) or multidimensional (e.g., physical, mental, or emotional; Katherine, 1994; Whitfield, 1993). The holistic, single-item measure does not reflect the complex structure of boundaries, but rather consumers' perceptions of the magnitude of the boundary between themselves and the focal brand. While it is not clear whether consumer-brand boundaries mirror the complexity or structural components of interpersonal boundaries, future research could encompass a consideration of consumer-brand boundary as a multi-dimensional construct and clarify what dimensions it consists of and how these should be measured. Such an exploration could build on the literature on individuals' need to belong, social distance, and sense of autonomy, but could also be informed by the correlations between boundary and self-brand connection, self-brand attachment, brand affect, self-congruence, and brand loyalty in the current research.

The current research focused on consumer-brand boundary as a consequence of masculinity and femininity incongruence between consumers and brands. This demonstrated one possible application of the boundary construct in testing theories, and shed light on gender incongruence effects, but it is important to acknowledge that consumer-brand boundary has implications for consumer brand responses and relationships that fall outside of the brand gender domain. In future research, the boundary measure could be applied to understand what consumer characteristics may influence consumer-brand boundaries, whether consumer-brand boundaries extend from parent brands to brand extensions, or whether consumers experience varying degrees of boundary with regard to different product categories. Furthermore, consumer-brand boundary could be applied to examine the nature of consumers' relationships with various technological and digital brands, such as Google, Amazon, Facebook, and Instagram, which have the potential to cross into consumers' personal and psychological space. The boundary construct could also be used to investigate consumer-brand boundaries arising from a brand's use of online or physical stores (e.g., Best Buy website versus physical stores; Sephora website/application vs. physical stores), and whether the presence of both online and offline stores (e.g., Best Buy) decrease consumers' perceptions of boundary compared with online store only (e.g., Amazon) because consumers and brands share a physical space in a brick-and-mortar retail setting.

It is also important to note that this research relied on North American participants. An investigation of consumer-brand boundaries in other cultural contexts would contribute to current knowledge, as would a comparison across cultural contexts. It is possible that cultural differences—such as those in chronic independent versus interdependent self-construal—have an impact on the magnitude of the boundary between consumers and brands.

With regard to the investigation of the effects of femininity and masculinity incongruence undertaken in this article, one limitation relates to the fact that not all experimental brand design manipulations used in study 2 had the intended effects on consumers' brand gender perceptions. The fact that the hypothesis tests involved measured consumer responses and replicated study 1 results suggests that—although the strength of manipulations was not as strong as anticipated—there was a reasonable variance in consumer perceptions and responses to accept the results as a rigorous hypothesis test. From a branding and practical perspective, however, it would be informative to link specific brand design characteristics, such as packaging shape, to consumers' perceptions of brand gender and subsequent perceptions of masculinity and femininity incongruence. The current work suggests that such design factors would have to be more obvious to trigger strong brand masculinity and femininity perceptions for new brands in gender-neutral product categories.

Finally, it is interesting to note that the coefficients of moderated mediation effects point toward a stronger impact of femininity rather than masculinity incongruence on consumers' perceptions of boundary

and responses to the brand. Although the current research focused on the interaction of masculinity and femininity incongruence, it did not focus on a comparison of the magnitude of the effects of masculinity and femininity (in)congruence. In a context of shifting gender roles, this may be a question of importance for future research on brand gender effects. The notion and measure of consumer-brand boundary introduced here could support such research avenues.

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APPENDIX

APPENDIX 1 MEASURES

Measure	Anchors	Source	Cronbach's Alpha
<i>Awareness</i> I know this brand. I'm familiar with this brand.	Strongly disagree/Strongly agree		.92
<i>Affordability</i> I can afford the product/service of this brand.	Strongly disagree/Strongly agree		
<i>Purchase history</i> I purchased this product/service of this brand before.			
<i>Brand Trust</i> I trust this brand. I rely on this brand. This is an honest brand. This brand is safe.	Strongly disagree/Strongly agree	Chaudhuri and Holbrook (2001)	.86
<i>Brand Affect</i> I feel good when I use this brand. This brand makes me happy. This brand gives me pleasure.	Strongly disagree/Strongly agree	Chaudhuri and Holbrook (2001)	.95
<i>Attitude Toward the Brand</i> What is your global evaluation of the brand?	Negative/positive Dislike/like Favorable/unfavorable		.97
<i>Brand Preference</i> Indicate your degree of liking or preference for [brand] relative to other brands in the same product category.	Very poor/very good Very unsatisfactory/very satisfactory Very unfavorable/very favorable	Sirgy et al. (1997)	.97
<i>Purchase Intention</i> How likely are you to purchase this brand in the near future?	Unlikely/likely Improbable/probable		.98
<i>Attitudinal Brand Loyalty</i> I am committed to this brand. I would be willing to pay a higher price for this brand over other brands	Strongly disagree/strongly agree	Chaudhuri and Holbrook (2001)	.90
<i>Behavioral Brand Loyalty</i> I will buy this brand next time I buy (the product category). I intend to keep purchasing this brand.	Strongly disagree/strongly agree	Chaudhuri and Holbrook (2001)	.94

Likelihood of Recommendation	Unlikely/likely		.98
How likely are you to recommend this brand to a friend?	Improbable/probable		
Word-of-Mouth Communication	Strongly disagree/strongly agree	Kim, Han, and Park (2001)	.94
I recommend to other people that the brand should be theirs as soon as possible.			
I recommend the brand to other people.			
I talked directly about my experience with this brand with them.			
MBP	Not at all descriptive/Extremely descriptive	Grohmann, 2009	.89
Adventurous/ Aggressive/ Brave/ Daring/ Dominant/ Study			
FBP			.93
Expresses tender feelings / fragile / graceful/ sensitive/ sweet/ tender			
Self-brand connection	Strongly disagree/Strongly agree	Escalas & Bettman, 2003	.97
This brand reflects who I am.			
I can identify with this brand.			
I feel a personal connection to this brand.			
I (can) use this brand to communicate who I am to other people.			
I think this brand (could) help(s) me become the type of person I want to be.			
I consider this brand to be “me” (it reflects who I consider myself to be or the way that I want to present myself to others)			
This brand suits me well.			
Self-brand attachment	Not at all/ Very well	Thomson, MacInnis, & Park, 2005	.98
Affectionate/ Friendly/ Loved/ Peaceful/ Passionate/ Delighted/ Captivated/ Connected/ Bonded/ Attached			
Brand engagement in self-concept (BESC)	Strongly disagree/Strongly agree	Sprott, Czellar, & Spangenberg, 2009	.92
I have a special bond with the brands that I like.			
I consider my favorite brands to be a part of myself.			
I often feel a personal connection between my brands and me.			
Part of me is defined by important brands in my life.			
I feel as if I have a close personal connection with the brands I most prefer.			
I can identify with important brands in my life.			
There are links between the brands that I prefer and how I view myself.			
My favorite brands are an important indication of who I am.			

MTI

Have leadership abilities/ Willing to take a stand/
Ambitious/ Competitive/ Dominant/ Assertive/ A
strong personality/ Forceful/ Act like a leader/
Aggressive

Never or almost never
true/
Always or almost
always true

Stern, Barak,
& Gould,
1987

.91

FTI

Affectionate/ Loyal/ Tender/ Sensitive to others'
needs/ Sympathetic/ Compassionate/ Eager to soothe
hurt feelings/ Understanding/ Gentle/ Warm

.94

**APPENDIX 2
EXPERIMENTAL STIMULI (STUDY 2)**

Package shape		Curved			Square	
Package color	Masculine	Feminine	Neutral	Masculine	Feminine	Neutral
Product						
Iced tea						
Deodorant						